

## Supplementary Tables

**Table S1: Study koalas**

| ID | Study Group            | Radio-Tracked in Wild | Capture Location          | Sex | Toothwear          |
|----|------------------------|-----------------------|---------------------------|-----|--------------------|
| B  | Captive MG1: control   | No                    | 38°50'04.4", 143°31'08.0" | F   | 3                  |
| C  | Captive MG1: control   | No                    | 38°49'44.0", 143°30'40.5" | F   | 3                  |
| F  | Captive MG1: control   | No                    | 38°50'18.8", 143°30'30.9" | M   | 3                  |
| D  | Captive MG1: treatment | No                    | 38°49'44.0", 143°30'40.5" | M   | 3                  |
| E  | Captive MG1: treatment | No                    | 38°50'17.1", 143°30'35.0" | F   | 4A                 |
| G  | Captive MG1: treatment | No                    | 38°50'07.6", 143°30'30.3" | M   | 4A                 |
| U  | Captive MG2: control   | No                    | 38°49'40.7", 143°30'39.6" | M   | 4C                 |
| V  | Captive MG2: control   | No                    | 38°49'56.0", 143°30'45.0" | F   | Not Recorded       |
| W  | Captive MG2: control   | No                    | 38°49'44.2", 143°30'45.2" | M   | 3                  |
| P  | Captive MG2: treatment | Yes                   | 38°49'47.6", 143°30'49.3" | F   | left: 5, right: 4B |
| T  | Captive MG2: treatment | No                    | 38°49'55.6", 143°30'45.4" | F   | 4C                 |
| X  | Captive MG2: treatment | No                    | 38°49'50.9", 143°30'39.1" | M   | 3                  |
| L  | Donor for MG1          | Yes                   | 38°49'53.2", 143°31'41.8" | M   | 4B                 |
| R  | Donor for MG1          | Yes                   | 38°50'04.0", 143°31'15.1" | F   | 5                  |
| A  | Donor for MG1 and MG2  | Yes                   | 38°49'59.3", 143°31'25.0" | M   | 4C                 |
| H  | Donor for MG1 and MG2  | Yes                   | 38°49'49.9", 143°31'37.7" | F   | 4A                 |
| I  | Donor for MG1 and MG2  | Yes                   | 38°49.899, 143°31'31.501  | M   | 3                  |
| J  | Donor for MG2          | Yes                   | 38°49'47.8", 143°31'24.2" | M   | 4B                 |
| S  | Donor for MG2          | Yes                   | 38°49'54.1", 143°31'36.4" | M   | 4A                 |
| C  | Wild Manna Gum koala   | Yes                   | 38°49'57.9", 143°30'55.4" | M   | Right 6, left 7    |
| M  | Wild Manna Gum koala   | Yes                   | 38°49'52.1", 143°30'43.2" | F   | 4C                 |
| N  | Wild Manna Gum koala   | Yes                   | 38°49'47.7", 143°30'41.2" | M   | 3                  |
| O  | Wild Manna Gum koala   | Yes                   | 38°49'46.2", 143°30'44.6" | M   | 4A                 |
| Q  | Wild Manna Gum koala   | Yes                   | 38°49'46.4", 143°30'46.3" | F   | 4B                 |
| Y  | Wild Messmate Koala    | Yes                   | 38°49'57.8", 143°31'29.2" | F   | 4C                 |

**Table S2: Donor koala faeces used in inoculum on each day: Cohort MG1**

| ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----|---|---|---|---|---|---|---|---|---|
| A  | Y | Y | Y | Y | Y | Y | Y | Y |   |
| H  | Y | Y | Y | Y | Y | Y | Y | Y |   |
| I  | Y | Y | Y | Y | Y | Y | Y |   | N |
| L  | N | Y | N | Y | Y | Y | Y | N | Y |
| R  | N | N | Y | N | Y | Y | Y | Y | Y |

Y = faeces from that koala was included on that day, N = faeces from that koala was not included on that day

**Table S3: Donor koala faeces used in inoculum on each day: Cohort MG2**

| ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----|---|---|---|---|---|---|---|---|---|
| A  | Y | Y | N | Y | N | Y | Y | Y | N |
| H  | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| I  | Y | Y | Y | Y | Y | Y | Y | Y | N |
| J  | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| S  | Y | N | Y | Y | Y | Y | Y | Y | Y |

Y = faeces from that koala was included on that day, N = faeces from that koala was not included on that day